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HYSTERICAL SYMPTOMS

IN

ORGANIC NERVOUS AFFECTIONS.

BY

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ELECTROLOGY AND NEUROLOGY.

On Hysterical Symptoms in Organic Nervous Affections. By E. C. SEGUIN, M.D., Clinical Professor of Diseases of the Nervous System, at the College of Physicians and Surgeons, New York.*

I PURPOSE, in this paper, calling attention to some points in the semeiology of diseases of the nervous system which have as yet been little studied—perhaps not at all in this country. While I do not know that any author has written upon this subject, I wish to say that I was first led to observe the emotional state of paralytics through a remark of Prof. Charcot, of Paris, made either at the *Société de Biologie*, or in his wards in the Salpêtrière Hospital, during the winter of 1869-70. I have since that time frequently spoken of hysteroid symptoms as occurring in certain paralytics, in lectures, and have called the attention of the resident staff at the Epileptic and Paralytic Hospital on Blackwell's Island, New York, to the matter. I am also aware that Dr. Brown-Séquard has observed and studied such symptoms in private practice. I should also say that a recent writer on the pathological physiology of the cerebrum,† has ably writ-

* This paper was read before the N. Y. Society of Neurology and Electrology at the meeting for June, 1874.

† De Fleury; *Du dynamisme comparé des hémisphères cérébraux.* Paris, 1873.

ten of symptoms closely akin to those I shall describe, and has (after Brown-Séquard) pointed out how different are the symptoms produced by lesions of either cerebral hemisphere. I ought not to omit a reference to a remarkable paper, written a good while ago,* in which pointed attention is paid to the emotional state of hemiplegic patients, whose intellectual condition is criticised by the author, Dr. B. W. McCready.

The term "hysterical symptoms" is one which seems useful for purposes of clinical study and classification, and one, consequently, to be retained until we shall have exactly analyzed and re-classified the signs which, together, go to form the classical hysterical state, or hysteria.

Philosophically considered there is nothing specific in hysterical symptoms; they are functional disturbances of various organs, due to a morbid dynamical state of the nervous system. With this understanding, it is not difficult to conceive of the very large number of symptoms which may receive, and justly in a certain sense, the qualification hysterical. The term hysteria, and the adjective derived from it, I shall make use of without having much respect for it; it was imposed upon nosologists by the dominant theory of olden time respecting the pathological physiology of the morbid state in question; a theory holding that the uterus and its appendages were the seat of the morbid process. With the various theories of hysteria, their rise and fall, and rehabilitation, I have only this to do: to state that most physicians to-day believe that the central nervous system is at fault, dynamically, in hysteria. Some writers teach that the spinal cord is most disordered in this condition; others, that the organ whose badly performed functions are exhibited by "hysterical symptoms" is the cerebrum.

Before proceeding to relate the cases which form the basis of this essay, I may be pardoned for presenting in tabular form an analysis of the chief hysterical symptoms. (See p. 3.)

The following cases are offered as illustrations of the proposition that hysterical symptoms will present themselves in persons suffering from organic disease of the nervous system. A natural division of the cases is adopted, into cases of disease of the brain,

* To what degree are the Intellectual Faculties affected in cases of Apoplexy and Hemiplegia? N. Y. Journal of Medicine, iii., p. 203, (1857.)

and cases of disease of the spinal cord. Cases observed by myself are marked by a prefixed asterisk.

HYSTERIC SYMPTOMS.

Intellectual.	Simple eccentricity of conduct.	
	Impairment of logical capacity.	
	General ideational disorder (mania).	
Emotional.	Concentration of attention upon idea or sensation (ecstasy).	
	Psychic pain.	
	Crying	with co-incident spasms and secretions.
Sensorial.	Laughter	
	Moroid impulses.	
	Hyperæsthesia.	
Anæsthesia.	Special senses.	
	Ovary (left).	
	Infra-mammary region (left).	
Dysæsthesia.	Vertebral groove (left).	
	Whole surface of body.	
	Special senses (hemiopia, amaurosis, deafness).	
Motorial.	Skin.	
	Hemiplegic (left).	
	Paraplegic.	
Hyperkinesis.	Universal.	
	Deep parts.	Loss of muscular sense.
	Pain.	
Akinesis.	Retention of excretions.	
	Side of head (left) (clavus).	
	Left breast.	
Secretory.	Various neuralgicæ.	
	Ovarian aura.	
	Globus hystericus.	
Numbness.		
Sense of heat or cold.		
Hallucinations.		
Tetanoid seizures.		
Hystero-epilepsy.		
Local contractures.		
Postural spasms.		
Catalepsy.		
Cough and vomiting.		
Paraplegia.		
Hemiplegia (left) (not facial).		
Retention of excretions ; incontinence.		
Excess of tears.		
" " urine.		
" " intestinal gas.		
Suppression of urine.		
Local congestion and ischæmia.		
Imitation of various organic diseases, (arthritis, etc.)		

CLASS A.

Cases of Disease of the Spinal Cord.

*I.—Female, E. E., 36 years, born in New York. Left hemiplegia, with paresis of right limbs—well marked hysterical

symptoms ; suppuration of left elbow joint ; death, extensive central myelitis, with formation of cavities in cord.

This patient was admitted to Epileptic and Paralytic Hospital, Sept. 17th, 1868. Five years before had sudden right hemiplegia, cured in three months. About three years ago, while under strong depressing emotion, sat out of doors three days and two nights, when palsy of left lower limb was found. Two months before admission had pins-and-needles feeling in left arm, and gradually lost use of it. On reception, patient *nervous* ; has left hemiplegia, (paresis of arm,) with contractured leg in flexion ; palsied parts are seat of prickings, and are cooler than right limbs ; cannot retain urine ; speech (articulation) impaired. August 23d, 1871 : has double rotatory nystagmus ; no diplopia, pupils normal ; no facial palsy ; left hemiplegia with contracture of fingers (slight), of knee and foot. Complete anaesthesia of left arm, slight, (with numbness,) of lower limb ; right arm only weak ; incontinence of urine.

This patient exhibited almost constantly, during the several months I observed her, well-marked hysterical symptoms. She had a squeaky, tremulous voice, which changed easily into a natural tone when she was chided. Often she began to cry, flush, and shed tears on speaking to me, but if I passed on she would control herself. I may state that the larynx was normal. I often hesitated in my diagnosis because of the coincidence of these emotional symptoms with left hemiplegia. She died on February 16th, 1873, in consequence of exhaustion from the elbow-joint lesion, and a sacral bed-sore. The spinal lesion has been spoken of, and it remains only to add that no lesion was found in the cerebral hemispheres.

*II.—Female, æt. 32 ; single. Admitted to Presbyterian Hospital November 16th, 1872. Attacks of gastric pain and vomiting ; fulgurating pains in extremities ; palsy of left 3d nerve ; locomotor ataxia. Sudden death ; cerebellar haemorrhage ; sclerosis of posterior columns of spinal cord.

Many details of this case are interesting for the student of locomotor ataxia, but need not be reproduced here. Suffice it to say that this patient was remarkably emotional and hysterical in manner, so much so that hysteria was thought to be her only disease, manifesting itself in emotion, vomiting, numbness of left arm, and neuralgia. The nurses and the resident staff could not be fully persuaded that the patient had organic disease. Upon examining her on taking the service, January 4th, 1873, I became

convinced, from the coexistence of fulgurating pains, ataxia in upper and lower extremities, and left 3d nerve palsy, that the case was one of sclerosis of the posterior columns, complicated by hysteria. Her death took place as follows, according to the hospital case-book : "April 6th, again hysterical ; complains of left arm. April 14th, was taken with severe hysterical (?) convulsions at 3.30 P.M., which were quite continuous and lasted about an hour. There was no vomiting, and nothing to show pure hysteria, such as she had had before. When the convulsions ceased patient fell into a sleep, as was generally the case after the attacks of hysteria. In this sleep there was nothing remarkable, and about 7 P. M. the nurse, having her attention called to her by hearing a loud sigh, found her in apparent syncope. On the arrival of the resident physician the patient was dead."

*III.—Female, æt. 23 ; single. Sclerosis of cord ; hysterical symptoms. Seen October 20th, 1873. A nervous girl, with occasional irregularity of menstruation, but no dysmenorrhœa : at times hysterical laughter or tears ; never convulsive attack. In July, 1871, while out walking, after having climbed a number of walls, felt weak and awkward in right leg ; thought she had sprained her knee. There is not enough evidence to support this statement. Ever since she has had weak right leg, without anaesthesia or numbness ; at times more use of leg than at others ; almost cured once or twice ; of late has required help of crutch or friend's arm in walking. When I examined Miss De P. I found paresis of the right leg, the loss of power being marked at ankle and toes ; there was doubtful weakness of the right hand ; I could not make out that the knee-joint was affected. The muscles of the right leg showed a slight diminution of reaction to Faradic current, and this agent also showed that sensibility to pain was a little dull in leg and foot. In view of the history of the case, the capricious development of the palsy, the absence of reliable signs of central disease, the presence of a strong neurotic element in the family, and the fact that strong emotions had been acting upon her, I concluded that the patient had a functional palsy of an hysterical nature. Strychnia was given her and Faradism used. The specific effects of strychnia appeared, and the patient was decidedly tetanized for a while ; this passed off, and when I last saw the patient, on December 11th, she was in about the same state as at the beginning of treatment. The unfavorable effects of the treatment led me then to believe that the patient had an obscure central lesion, probably sclerosis.

In March or April, 1874, patient rapidly grew worse, becoming paraplegic and her hands showing paresis. In July she was placed in an irregular water-cure house, where extensive bed-sores formed, in consequence of want of care and of cold applications to the palsied parts. (She had *continuous* applications for several days.) Exhaustion and pyæmia caused death, August 1st. The post-mortem examination showed disseminated sclerosis of the spinal cord. The brain not examined. I have the specimen in fluid, and will make a detailed report of the lesion. Dr. Chas. A. Leale of this city

treated the patient during July, after the bed-sores had formed, and I made the autopsy at his request and that of deputy coroner Dr. Shine.

IV.—Case by DUCHENNE. In a female who had true hysterical paraplegia, in Troussseau's service. Dr. Duchenne discovered that patient was suffering from the characteristic fulgurating pains of locomotor ataxia, and had noticed them five years. Dr. Duchenne diagnosed the coexistence of hysteria and locomotor ataxia, and foretold that after the cure of the paraplegia the ataxic movements would reappear. This did happen after the use of Faradization.

Electrisation localisée, p. 653, ed. 1872.

V.—Female æt., —. Hysteria and sclerosis of the lateral columns of the spinal cord. The patient, a female, began to have attacks of convulsive hysteria about the age of 14 years, and occasionally thereafter; at 34, after such an attack, had a left hemiplegic contracture, which lasted a fortnight and suddenly disappeared. The next year there was a second attack of contracture, at first hemiplegic, then bilateral. After two years patient improved so much as to be able to walk about; then a relapse occurred after an hysterical attack. Death by an intermittent disease. Post-mortem examination by Bouchard showed sclerosis of both lateral columns of the spinal cord from medulla downward. The early history of case was taken by Briquet in 1850, and completed by Charcot at the Salpêtrière.

CHARCOT. Soc. méd. des hôpitaux, séance du 25 janvier, 1865; in Gaz. hebdom., 1865, p. 109.

VI.—Female, æt. 36. There were symptoms of sclerosis of various parts of the spinal cord and medulla oblongata; hysterical attack. At time of report patient still alive. She was the sister of two females affected with disseminated sclerosis of nervous centres. From an early period she had had attacks of convulsive hysteria, throwing herself about in bed, uttering monotonous cries; the respiration reduced; apathy and seeming unconsciousness closing the scene. These attacks were usually brought on by emotional disturbances.

FRIEDRICH: Ueber degenerative Atrophie der spinalen Hinterstränge. Virchow's Archiv, 1863, Bd. xxvi., p. 291 et seq. Bd. xxvii., p. 1. (Case of Lisette Süss.)

In the above six cases of organic disease of the spinal cord the following hysterical symptoms were observed and noted.

Abnormal emotional tendency in all cases.

General nervousness in cases I., II., III.

Tears and sobs upon slight provocation in case I.

Tremulous variable phonation in case I.

Disordered sensibility on the left side in cases I., II.

Disordered sensibility in lower limbs in case IV.

Vomiting in case II.

Temporary paralysis in case IV.

Contracture of limbs in case V.

Convulsive attacks in cases II., V., VI.

The commingling of these hysterical symptoms with the signs of organic disease has caused each case to present a peculiar problem to the examining physician. Sometimes the organic disease was wholly overlooked. In Trousseau's and Duchenne's case (IV.) the diagnosis of hysterical paraplegia had been correctly made, and the sclerosis of the posterior columns of the cord not suspected by the former celebrated clinician. Charcot's case (V.) is still* referred to him as one of hysteria, in which a lesion was found—a view which I would suggest is the inversion of the correct one. As regards my own cases, in Nos. I. and II., there were times when I was in much doubt as to whether all the phenomena were not functional. It was not until alterations of nutrition appeared in Eagles (I.) that I became firm in my conviction that there was a spinal lesion. Her general appearance, manner, and speech, and the existence of many of her symptoms upon the left side, made up a more strongly marked picture of hysteria than I can give any idea of by words. In Miss L.'s case (II.) my faith in the significance of fulgurating pains and coexistent 3d nerve palsy kept me right. Even after I had made the diagnosis of sclerosis in this patient, the impression of the medical gentlemen who saw her was that she was simply hysterical. In the case which I have added since reading this essay, Miss De P. (III.) I made a grave mistake in diagnosis. I am glad to be able to publish this case as a guide for other physicians.

From a study of these few cases, in the present state of our knowledge of pathological physiology, it seems impossible to point out any close genetic relations between the lesions found and the hysterical symptoms observed. In support of the view that there was merely a coincidence in these six cases, I would adduce the following considerations: *a.* That the organic diseases were various. Two patients had sclerosis of the posterior col-

* Charcot: *Leçons sur les maladies du système nerveux*, Paris, 1872-3, p. 316-7.

umns of the cord ; two (including case III. not yet minutely studied) disseminated sclerosis ; one sclerosis of the lateral columns ; and one extensive central myelitis. *b.* That the number of cases of disease of the spinal cord in the books and periodicals I have been reading in several years is quite large, and that these six cases form an insignificant minority. *c.* A certain number of cases of fatal hysteria have been examined after death, without any lesion of the central nervous system being discovered.*

After this conclusion of coincidence, I can only call the attention of this society to one question connected with these cases, viz., that of their bearing upon diagnosis. There are reasons for believing that hysterical persons are sometimes treated for organic diseases of the spinal cord, which exist only in the physician's mind ; and the cases I have related show how possible the converse error is when the hysterical symptoms are so prominent as to prejudice the physician ; and we may thus be led to attempt severe and unsuccessful treatment, and to make a false prognosis.

The only way in which we can hope to avoid these errors is by having a clear understanding of what symptoms are hysterical, either essentially so or by association in groups ; and by being prepared to appreciate and firmly believe in the true meaning of cardinal symptoms of organic disease of the spinal cord ; as the fulgurating pains and 3d nerve palsy of posterior spinal sclerosis, the paresis, ataxia, and peculiar speech of disseminated nodular sclerosis, the alterations of nutrition, and the abnormal muscular reactions to electricity in myelitis, etc. I believe that in minute and exact analysis of symptoms and symptom-groups lies our only safety.

CLASS B.

Cases of Disease of the Brain.

*I.—Mrs. R., 75. The subject of extensive arterial degeneration. On September 16th, 1873, a left hemiplegia was quickly developed without loss of C. There was complete anaesthesia also on left side of body. In course of three weeks there was no improvement in palsy, or anaesthesia, contracture appearing, and patient became very much depressed and careless of result;

* L. Meyer: *Ueber acute tödliche Hysterie.* Virchow's Archiv, 1856, p. 98.

this melancholy being in striking contrast with her previous condition. No improvement during winter. The general health remained remarkably good ; the heart and arteries showing signs of progressing disease. No fever. The most striking symptoms were of an hysterical nature ; the patient crying like a child for a moment, without any sufficient provocation. Upon the physician saying "Good morning," this lady would burst into convulsive crying, with enormous facial contortions—no tears, but moaning just like a child. Suddenly the fit would pass off, the face become natural in an instant, and the patient would exclaim, in a provoked way, "Oh, what an old fool I am!" During the short medical visit, in a few minutes, several such paroxysms would occur. Besides, in the last few months of life there were great physical restlessness, peevishness, loss of memory, hallucinations, (eye and ear,) and delusions. Death toward end of May, 1874 ; no autopsy allowed. It should be added that this lady had possessed remarkable intellectual power, and unusual force of will ; that during the winter, often immediately after crying attacks, she made very witty remarks. This lady was a patient of Dr. Wm. H. Draper, with whom I saw her.

*II.—Midwife, æt. 46. Left hemiplegia. Some prodromata in the shape of vertigo last summer, and much headache. Sudden palsy of left side without loss of C. When examined at the Epileptic and Paralytic Hospital, Blackwell's Island, on January 30th, 1874 : presents a complete left sided palsy, with marked anaesthesia of left face ; great loss of sensibility in left arm and leg ; does not know where arm lies ; has beginning secondary contracture. The intercostal muscles on the left side are much palsied ; the heart shows a faint apex systolic murmur ; no gout or syphilis. In the middle of February marked hallucination of sight and hearing occur. Left (palsied) palm 3° Fahr. warmer than right. In March, April, May, and since, patient is often very emotional, though perfectly rational. Bursts into tears with much facial contortion, saying she does not know why. Some improvement in leg ; none in arm, though sensibility is everywhere much better.

*III.—Male, æt. 28. Left hemiplegia, from probable embolism of a cerebral artery. Came to Clinic for Diseases of the Nervous System at the College of Physicians and Surgeons, where it was learned that eight weeks before, when going to bed, he had a slight vertigo, with tingling in the left side of tongue, and numbness, followed by loss of power in left limbs. No loss of C. Was in bed three weeks, because of inability to walk. Has since improved steadily. Examination shows a common left-sided hemiplegia, with involvement of face and tongue. There is a basal systolic heart-murmur. On June 13th, 1874, very much improvement is noted. During examination the patient flushes. He states that since attack he has been unduly emotional ; when annoyed he has felt something rising from chest into throat, preventing speech ; has even wept a few times.

*IV.—Female, 28 ; married. General paresis, hysterical symptoms. In June, 1873, began to complain of severe headache, universal, more severe on right side ; not nocturnal, occurring in non-periodic paroxysms. Pain down

the spine. In July gradual failure of sight ; some loss of memory ; using wrong words. Generalized weakness first noticed by friends during December. No delirium. Since June occasional trembling of hands. From the first has had feeling of pins and needles in all her limbs at extremities. Has also had attacks of suffocation—something filling up her throat. Much constipation and nausea. In last two months less headache. Examination on November 11th, 1874 : Patient so weak as to be hardly able to stand; totters much and inclines a little to left side ; speaks loudly and complains of darkness of room. Speech clearly articulated and rational. Memory much impaired ; hands very weak ; no facial palsy, or muscular atrophy. Ophthalmoscope shows retinal vessels issuing from a uniformly red and velvety ground; choked discs. No anaesthesia. Very deaf on left side. Has been very emotional at times, and now presents a hysterical manner. Has been seen several times by Brown-Séguard, who thinks that she has a brain tumor.

*V.—Male, æt. 18. Left hemi-chorea with paresis, 3d pair palsy on right side ; probable lesion of right crus cerebri; hysterical laughter. This young man had paresis of left arm gradually developed from May, 1873. In July the choreic movements first appeared. On December 6th, left arm, leg and face are seat of rather ataxiform choreic movements ; no palsy of eye muscles. Toward middle of January, 1874, hebetude, greater chorea, slight ptosis on right side. During late winter and spring progress in paresis and 3d pair palsy ; hebetude, but no loss of memory. Often laughs without cause, and finds great difficulty in stopping the laughter : more correctly, patient has, involuntarily, the special spasm of full laughter very often, without the psychical elements. August, 1874, complete 3d pair palsy, with left hemiplegia and chorea; at times some spasm in right arm ; intelligence good. Patient died in September, but no autopsy could be obtained.

VI.—Male, æt. 43. Left hemiplegia. When twenty-two years of age had a chancre followed by secondary manifestations. Twelve years ago had an attack of hemiplegia, involving left side of face, and left limbs. The paralysis came on slowly ; soon after a mid-day dinner he noticed that the leg was weak. In the course of an hour this became entirely paralyzed, and the arm became enfeebled. At first, some improvement, none in last few years. Examination (spring of 1874) shows a left hemiplegia without contracture, except in face, where some muscles show some slight clonic spasms. Since a short time after attack, has been easily excited, either to laughter or tears; on which account he has been unable to go to church. Mind clear ; some impairment of memory. Has atrophy of right optic disc.

Observation by DR. T. A. McBRIDE, of New York.

VII.—Male, æt. 39. Hysteria ; left hemiplegia ; semi-coma ; thrombosis of basilar artery. Patient had been weak and stupid for two years. A fortnight before admission had vertigo, and repeated attacks of a hysterical nature, with sobs, and bursts of laughter. Five days before death developed left hemiplegia, and passed into comatose state.

JOHN W. OGLE, in Trans. of Path. Soc., of London, 1864, p. 14.

VIII.—Male, aet. 59. Left hemiplegia ; speech preserved ; much anaesthesia of palsied limbs ; impairment of sight and hearing on left side. In three months some periodical delusions. Is at times given to laughing in an almost insane way ; after which there supervenes a strong tendency to weep. Death in eleven months.

DE FLEURY : *Du dynamisme comparé des hémisphères cérébraux.* Paris, 1873. pp. 123-4.

IX.—Female, aet. 74. Left hemiplegia ; speech preserved ; various alterations of sensibility (anaesthesia of left limbs, ear, and eye.) When asked to perform movements patient cries and sheds tears. Later hallucinations and delusions. Death in nine months, with palsy of right side.

DE FLEURY : *Op. cit.*, pp. 124-5, obs. xii.

X.—Male, aet. 42. Right hemiplegia, with aphasia. Subsequently frequent epileptic convulsions, which diminished in frequency later. Intellect remained clear ; partial recovery of limbs. “In the early years of his infirmities crying fits would often occur, especially when meeting an old friend, and no one near him to interpret, or when he would see the promotion of a classmate, or on recovering from an epileptic attack, the tears would flow in torrents. On the other hand, a jest, an anecdote, or frolic of any kind would excite such convulsive laughter that I have again and again feared for his life, from the evident determination to his head.

. While engaged in any matter of interest his breathing becomes almost stertorous ; his salivation is profuse.”

DR. B. W. McCREADY : To what Degree are the Intellectual Faculties affected in cases of Apoplexy and Hemiplegia ? *N. Y. Journal of Medicine*, III., Sept., 1857, p. 203.

XI.—Male, aet. 60 ; Right hemiplegia and aphasia ; intellect good. ‘The patient Wilcox weeps as often as the physician calls attention to his misfortune. His face becomes as much distorted as that of a weeping child, and his tears flow freely.’

DR. McCREADY : *Op. cit.*, p. 221, and p. 246.

XII.—Male, aet. —. Double hemiplegia. Left side palsied first. While paralyzed in left side only, and still able to speak (on first day), he was as sound in mind as ever in his life ; yet he wept frequently, with a child’s distortion of face.

Case by PROF. A. CLARK, in McCREADY : *Op. cit.*, p. 236.

XIII.—Male, aet., 58. General paresis—greater on left side. Symptoms of organic brain disease, general paresis, epilepsy, speech much affected, writing scarcely legible, intellect clear. “He does not weep, but laughs immoderately on every trifling occasion. He scarcely smiles, but is seized with convulsive, hysterical laughter.” “He takes frequent and convulsive inspirations preparatory to uttering his words.” No autopsy.

PROF. A. CLARK, in *op. cit.*, p. 246.

XIV.—Female, aet. 52. Partial left hemiplegia, right hemiplegia of two years' standing ; palsied limbs, rigid ; absolute incapability of articulating sounds. "Every effort of the patient ends only in unintelligible stammering, interrupted by plentiful tears and sobs. Tears and sobs, such are the only means of expression in her power, and she uses them largely, for it is enough to feel her pulse or to speak to her to provoke an abundant flow of tears, a purple color of the face, and convulsive action of the muscles of respiration ; deglutition is embarrassed, and the patient makes us understand by gestures with her left hand, that the pharynx acts with difficulty." Intellect clear. Autopsy showed softening of the pons Varolii.

CRUVEILHIER, in *Anat. pathol.*, liv. xxi., p. 3.

XV.—Female, aet. 55. Four attacks of left and right hemiplegia, with great difficulty of articulation ; understanding preserved. She weeps whenever questioned. The autopsy showed a clot in the left hemisphere and cicatrices in the right hemisphere and in the cerebellum.

CRUVEILHIER : *Op. cit.*, liv. xxxviii., p. 1.

XVI.—Female, aet. 60. Left hemiplegia. An apoplectic attack in a subject of supra-orbital migraine. Although medical history is quite full, hysteria is not mentioned as having been present in earlier life. At beginning of attack had, with paresis of left limbs, "*une succession sans motifs de pleurs et de ris.*" Death in twelve days after beginning of palsy, which, at the last, involved also right limbs. Autopsy showed softening of corpora striata, and of centre of pons Varolii.

CRUVEILHIER, in *LALLEMAND* : *Recherches sur l'encéphale*, t. i., p. 101. Paris, 1824.

Of the above sixteen subjects :

Nine were males (III., V., VI., VII., VIII., X., XI., XII., XIII.)

Seven were females (I., II., IV., IX., XIV., XV., XVI.)

The paralysis was distributed as follows :

Right hemiplegia, two cases (X., XI.)

Left hemiplegia, nine cases (I., II., III., V., VI., VII., VIII., IX., XVI.)

Double hemiplegia, five cases (IV., XII., XIII., XIV., XV.)

Consequently fourteen out of sixteen patients had hemiplegia on the left side.

The hysterical symptoms present were not very various.

Undue emotions (tears and sobs) in fifteen cases.

Irrepressible laughter in five cases (V., VI., VII., VIII., X.)

Anæsthesia of left side of body in four cases (I., II., VIII., IX.)

Globus hystericus in two cases (III., IV.)

The lesions of the brain were determined by post-mortem examination only in a few instances.

The following table represents the pathological diagnosis :

Hæmorrhage in both hemispheres, one case (XV.)	
Unknown " "	two cases (XII., XIII.)
Probable embolism of right cerebral artery, one case (III.)	
" thrombosis of " " " one case (VI.)	
Unknown, in left hemisphere, two cases (X., XI.)	
" right " " four cases (I., II., VIII., IX.)	
Thrombosis of basilar artery, one case (VII.)	
Softening of pons Varolii, one case (XIV.)	
" pons and corpora striata, one case (XVI.)	
Probable cerebral tumor, one case (IV.)	
Disease of right crus cerebri, one case (V.)	

Emotional symptoms were present in fourteen cases of left hemiplegia, and in two cases of right hemiplegia. This disproportion is enormous, considering that the records of many authors have been diligently searched for cases. I think that we may conclude that patients with right hemiplegia (who so often lose their speech), hardly ever lose control over their emotions ; while the subjects of left hemiplegia often do. Right hemiplegiaes are comparatively cheerful ; left hemiplegiaes are depressed and prone to weep. I am led by my recent experience to believe that this law will be brought into much greater prominence by future statistics.

The question of difficulty in diagnosis which occupied us while discussing the spinal cases, seems to me of minor importance in cerebral cases. Two of the sixteen cases are worthy of remark in this connection. In one instance (case XVI.) the paralytic attack was preceded by a well marked fit of hysterical weeping ; in another instance (case IV.) the exact diagnosis remained uncertain until the existence of organic brain disease (tumor ?) was made sure by finding well-defined choked optic discs.

The thoughts which have arisen in my mind in connection with these relate to three points.

a. The possible parallelism between cases of hemiplegia from organic brain disease accompanied by hysterical symptoms, and typical hysteria.

b. The pathological physiology of some of the symptoms studied above, such as loss of control over the emotions, hemiplegia, and hemi-anæsthesia.

c. The new question of difference between the two cerebral hemispheres, in their functions and morbid susceptibility.

a. I have already, at the beginning of this essay, laid the foundations for comparing hysteria and the effects of certain brain diseases.

1. In typical hysteria the emotional symptoms are the most common, and according to many authors the most characteristic.

In all the cases of brain disease above related there were undue emotional manifestations, or emotional movements not duly controlled.

2. In typical hysteria many of the objective phenomena are almost always shown on the left side of the body; and we may consequently feel sure that in these cases the right hemisphere is disordered.

In nearly all of the above sixteen cases the right hemisphere was the seat of organic disease, and the symptoms were upon the left side of the body.

b. The genesis of symptoms in cases of organic disease and of functional hysterical disturbance. Adopting as I do, with some reservations, Brown-Séquard's new hypothesis, that brain lesions produce the symptoms which point out their existence, not by *destroying organs* in the brain, but by setting up irritations which *arrest* (inhibit) the functions of other parts of the encephalon, I find no difficulty in understanding why the same symptoms may exist without as well as with a brain lesion. In typical hysteria the functions of parts of the encephalon included in the right hemisphere, or in physiological relation with it, are inhibited by a peripheral irritation, starting from a diseased or disordered sexual apparatus, or other part; and, in case of organic brain disease, the same inhibitory action is produced. In both kinds of cases we may have loss of rational control over the emotions, loss of voluntary power over one half of the body, and loss of sensibility in the same part.

In cases of hemi-anæsthesia due to lesions in the neighborhood of the thalami optici, (Türck,* Charcot,†) the explanation is, I think, the same—that a lesion in this particular locality is more

* Sitzung der K. K. Akad. der Wissenschaften zu Wien, 1859.

† Op. cit., p. 271 et seq.

† C. R. de la Soc. de Biologie, 1870, pp. 27, 96, 116.

likely to inhibit the functions of the (sub-cerebral?) centres for perception of sensitive impressions than lesions of any other part. I have long believed, with Brown-Séquard, that it is just so in the case of aphasia: We are forced by cases to deny the existence of an organ of speech in any convolution, yet are equally obliged by statistics to admit that a lesion of the posterior part of the left third frontal convolution, and immediately subjacent parts, is much more certain to inhibit the complex cerebral functions which co-operate to form articulate language, than any other cerebral lesion.

c. I may be pardoned for adding a short review of what seems well established concerning the different results of lesions of either cerebral hemisphere. After the great advance caused by the numerous publications upon aphasia, Brown-Séquard pursued the inquiry. In 1870‡ he communicated his conclusions to the Biological Society of Paris. He found that after lesions of either hemisphere the following symptoms predominated.

Left Hemisphere.

Aphasia.

Palsy of organs of articulation.

Right Hemisphere.

Eschars.

Edema.

Palsy of sphincters.

More fever.

Greater mortality.

Pulmonary congestions.

More frequent deviations of eyeballs in coma.

Greater palsy.

The last three characters of left hemiplegia were added to the list in 1871.* He and Charcot also noticed, but did not publish, that when the right hemisphere was injured there was more emotional disturbance, and that of a depressed kind.

Mr. Callender,† in his remarkable papers on brain shocks, noticed the difference in the effect of lesions of either hemisphere and expressed himself as follows in his second conclusion:

“2. The rapidly fatal results of bleeding into the right hemi-

* C. R. de la Soc. de Biologie, 1871, p. 96.

† Anatomy of Brain Shocks, in St. Bartholomew's Hospital Report, iii. p. 415; v., p. 3.

F.C.R. de la Soc. de Biologie 1871. pp 27. 96. 11

sphere outside the thalamus and corpus striatum, as compared with bleeding into the corresponding parts on the left side."

Recently, De Fleury‡ has pursued the same inquiry with similar and more striking results. He adds to the above table, that sensibility is more often and more deeply impaired when the right hemisphere is diseased.

To sum up: Lesions of the right hemisphere give us
More frequent and greater anaesthesia.

Greater palsy.

Greater alterations of nutrition.

Optic neuritis (Jackson).
Eschars.
Œdema.
Pulmonary congestion.
Fever.

Palsy of sphincters.

Hysterical symptoms (emotional).

Lesions of the left hemisphere give us:

Less palsy and anaesthesia.

Aphasia.

Palsy of organs of articulation.

The general conclusions of this essay are:

First: I have brought forward facts to show that many hysterical symptoms may occur in diseases of the spinal cord and brain.

Second: that in diseases of the spinal cord these symptoms appear merely as a matter of coincidence.

Third: that in cases of cerebral disease the hysterical symptoms have a deeper significance, being in relation to the hemisphere injured.

NOTE.—Nov. 1st, 1874.—During the past summer and fall there have appeared in the *London Lancet* a series of excellent clinical lectures by H. Charlton Bastian, on the common forms of paralysis from brain disease. In Lecture V., part 2 (*Lancet* of Sept. 26, 1874, p.p. 440-441) the author refers at length to the subject of difference of symptoms when either cerebral hemisphere is injured.

E. C. S.

‡ *Du dynamisme comparé des hémisphères cérébraux.* Paris, 1873.



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